

What is claimed is:

1. An interconnect (21) comprising:

a first portion (22) comprising a magnet (30) with a first magnetic direction and means for forming an electrical connection; and

a second portion (23) comprising means for forming an electrical connection when coupled with the first portion,

wherein the first (22) and second (23) portions form a mechanical connection and an electrical connection when connected.

2. The interconnect (21) of Claim 1, wherein the first portion (22) and second (23) portion form a mechanical connection using magnetic attraction generated by the magnet (30).

3. The interconnect (21) of Claim 1, wherein the second portion (23) further comprises a magnet (41) with a second magnetic direction.

4. The interconnect (21) of Claim 2, wherein the electrical connection is aligned by the mechanical connection.

5. The interconnect (21) of Claim 4, wherein the electrical connection is aligned by the mechanical connection and a physical feature (71, 72) of the first (22) and/or second (23) portions.

6. The interconnect (21) of Claim 1, wherein the first (22) and second (23) portions comprise means for mechanically connecting fabric materials.
7. The interconnect (21) of Claim 6, wherein the first (22) and second (23) portions receive electric current from a current supply source (4) via fabric conductors (3) contained within the fabric materials.
8. The interconnect (21) of Claim 7, wherein the first (22) and second (23) portions form an electrical circuit when mechanically connected.
9. The interconnect (21) of Claim 8, wherein the electrical circuit passes current from one location on a fabric material to another location on a fabric material.
10. The interconnect (21) of Claim 8, wherein the electrical circuit passes electrical signals from one location on a fabric material to a device.
11. The interconnect (21) of Claim 1, wherein the means for forming an electrical connection comprises a male connector (61) or a female receptor (62).
12. The interconnect (21) of Claim 1, wherein the means for forming an electrical connection comprises a surface contact (51).
13. The interconnect (21) of Claim 1, wherein the means for forming an electrical connection of the first (22) or second (23) portion comprises the magnet (30).

14. An interconnect (21) comprising:

a first portion (22) comprising an electromagnet (30) and means for forming an electrical connection;

a means (4) for supplying current to the electromagnet (30); and

a second portion (23) comprising means for forming an electrical connection when coupled with the first portion (22),

wherein the first (22) and second (23) portions form a mechanical connection upon the electromagnet (30) receiving current and further form an electrical connection when mechanically connected.

15. The interconnect (21) of Claim 14, wherein the means for supplying current (4) further comprises an electronic device (7).

16. The interconnect (21) of Claim 15, wherein the electronic device (7) is a wearable electronic device.

17. The interconnect (21) of Claim 14, wherein the second portion (23) further comprises a magnet (41).

18. The interconnect (21) of Claim 17, wherein the magnet (41) is an electromagnet.

19. The interconnect (21) of Claim 14, wherein the second portion (23) comprises a substance attracted by a magnet.

20. A method of controlling a device (7) comprising:

coupling at least one interconnect (21) in a series of interconnects (21), each comprising a first portion (22) comprising a magnet (30) with a first magnetic direction and means for forming an electrical connection, and a second portion (23) comprising means for forming an electrical connection when coupled with the first portion (22), wherein the first (22) and second (23) portions form a mechanical connection and an electrical connection when connected;

sensing the coupling of the at least one interconnect (21);

controlling the device (7) based upon the number of coupled or uncoupled interconnects (21) in the series of interconnects (21).

21. The method of Claim 20, wherein the sensing step further comprises sensing when an electrical circuit is formed by the coupling step.

22. The method of Claim 21, wherein the controlling step further comprises incrementally controlling the device (7) based upon the number of coupled or uncoupled interconnects (21).

23. The method of Claim 21, wherein the device (7) is a heating element contained in a garment (20), and the at least one interconnect (21) is attached to the garment (20).

24. A garment (20) comprising:

an interconnect comprising a first portion (22) comprising a magnet (30) with a first magnetic direction and means for forming an electrical connection; and

a second portion (23) comprising means for forming an electrical connection when coupled with the first portion,

wherein the first (22) and second (23) portions form a mechanical connection and an electrical connection when connected.